

CLAIMS

1. through 40. (Cancelled)

41. (Currently Amended) A primary unit, for use in a power transfer system that has first and second portable electronic a plurality of secondary devices, each said secondary device being separable from the primary unit and having a secondary coil adapted to couple with an electromagnetic field generated by the primary unit [[.]] when the device is placed in a working disposition on or in proximity to a power transfer surface of the primary unit, so that power is transferred inductively from the primary unit to the secondary device, and the first and secondary devices differing from one another in one or more of [[.]] a size of the device, a size of the secondary coil, and size ; an area parallel to the power transfer surface over which the secondary coil of the device extends when the device is in its said working disposition; and a power requirement of the device;

 said primary unit being adapted to transfer power inductively to each said device and comprising:

 a field generator having first and second a plurality of nested coils of varying size for generating said electromagnetic field over the power transfer surface, said second coil differing from said first coil in that a power transfer area provided by the second coil, if activated independently of said first coil, differs in size or shape from a power transfer area provided by the first coil if activated independently of the second coil, and the field generator also having an activator for activating adapted to sense at least one of the size, the coil size, the power requirement, the position, and the rotation of the secondary device, the activator further adapted to selectively activate one or more of said first and second nested coils in response to the sensing result to provide, at the power transfer surface, a first power transfer

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~~area for transferring power inductively to the first device and a second power transfer area for transferring power inductively to the secondary device.~~

42. through 56. (Cancelled)

57. (Currently Amended) A primary unit according to claim 41, wherein one of the ~~first and second plurality of~~ coils encloses an area parallel to said power transfer surface that is larger than an area parallel to said power transfer surface enclosed by ~~the other another~~ of said ~~first and second plurality of~~ coils.

58. through 77. (Cancelled)

78. (Currently Amended) A system for transferring power to ~~portable electrical or electronic~~ secondary devices by inductive coupling, comprising:

~~a first such portable electrical or electronic plurality of secondary devices;~~

~~a second such portable electrical or electronic device;~~

a primary unit having a power transfer surface and a field generator for generating an electromagnetic field over the power transfer surface;

~~wherein:~~

each said secondary device is separable from the primary unit and has a secondary coil adapted to couple with the field ~~[],[]~~ when the secondary device is placed in a working disposition on or in proximity to the power transfer surface, so that power is transferred inductively from the primary unit to the secondary device; and

~~the first and secondary devices differ from one another in one or more of the following respects: a device size, a secondary coil size, an area parallel to the power transfer surface over which the secondary coil of the device extends when the device is in said working disposition; and a power requirement of the device; and~~

the field generator comprises:

~~a first coil and a second coil which differs from said first coil in that a power transfer area provided by the second coil, if activated independently of said first coil, differs in size or shape from a power transfer area provided by the first coil if activated independently of the second coil plurality of nested primary coils of varying size; and~~

~~an activator for activating adapted to activate said first and second primary coils to provide, at the power transfer surface, a first power transfer area for transferring power inductively to the first device and a second power transfer area for transferring power inductively to the secondary device, the activator adapted to sense at least one of the size, the secondary coil size, the power requirement, the position, and the rotation of the secondary device, the activator further adapted to selectively activate one or more of the nested coils in response to the sensing result.~~

79. (Currently Amended) A primary unit, for use in a power transfer system that has first and second portable electronic ~~secondary~~ devices, each said ~~secondary~~ device being separable from the primary unit and having a secondary coil adapted to couple with an electromagnetic field generated by the primary unit [[.]] when the ~~secondary~~ device is placed in a working disposition on or in proximity to a power transfer surface of the primary unit, so that power is transferred inductively from the primary unit to the ~~secondary~~ device, and the first and second devices differing from one another in ~~one or more of~~ : a device size; an area parallel to the power transfer surface over which the secondary coil of the device extends when the device is in its said working disposition; and a power requirement of the device ~~at least one of~~

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the size, the coil size, and the power requirement of the device; said primary unit being adapted to transfer power inductively to each said device and comprising:

a field generating means having first and second coils for generating said electromagnetic field over the power transfer surface, said first and second coils differing from said first coil in at least one of size and shape such in that a power transfer area provided by the second coil, if activated independently of said first coil, differs in size or shape from a power transfer area provided by the first coil if activated independently of the second coil; and

, and the field generating means also having means for activating an activator adapted to sense at least one of the size, the coil size, the power requirement, the position, and the rotation of the secondary device, and to selectively activate said first and second coils in response to the sensing to provide, at the power transfer surface, a first power transfer area for transferring power inductively to the first device and a second power transfer area for transferring power inductively to the secondary device.

80. (Currently Amended) A system for transferring power to portable-electrical or electronic secondary devices by inductive coupling, comprising:

a first such portable electrical or electronic secondary devices;

a second such portable electrical or electronic device;

a primary unit having a power transfer surface and a field generating means for generating an electromagnetic field over the power transfer surface;

wherein:

each said secondary device is separable from the primary unit and has a secondary coil adapted to couple with the field [[,]] when the device is placed in a working

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disposition on or in proximity to the power transfer surface, so that power is transferred inductively from the primary unit to the secondary device; and the first and second devices differ from one another in one or more of the following respects: a device size; an area parallel to the power transfer surface over which the secondary coil of the device extends when the device is in said working disposition; and a power requirement of the device the secondary devices differing from one another in at least one of the size, the coil size, and the power requirement of the secondary device; and

the field generating means comprises:

a first coil and a second coil which differs from said first coil in at least one of size and shape such that a power transfer area provided by the second coil, if activated independently of said first coil, differs in at least one of size or and shape from a power transfer area provided by the first coil if activated independently of the second coil; and

means for activating an activator adapted to sense at least one of the size of the secondary coil and the size, the power requirement, the position, and the rotation of the secondary device, and to selectively activate said first and second coils in response to the sensing to provide, at the power transfer surface, a first power transfer area for transferring power inductively to the first device and a second power transfer area for transferring power inductively to the secondary device.

81. through 98. (Cancelled)

99. (New) A primary unit according to claim 41 wherein the nested coils are concentric.

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100. (New) A system according to claim 78 wherein at least one of the portable devices bears an indication of a correct device position or rotation for placing the device in its said working disposition on or in proximity to the power transfer surface.
101. (New) A system according to claim 100 wherein the indication comprises a line or arrow.
102. (New) A system according to claim 100 wherein the indication is rendered by printing ink.
103. (New) A system according to claim 78 wherein the nested coils are concentric.
104. (New) A primary unit according to claim 79 in which the first and second primary coils are nested.
105. (New) A primary unit according to claim 104 in which the nested coils are concentric.
106. (New) A system according to claim 80 wherein the first and second primary coils are nested.
107. (New) A system according to claim 106 wherein the nested primary coils are concentric.